

# **National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution**

## Glossary

Full document available at  
<http://www.epa.gov/owow/nps/wetmeasures/>



# Glossary

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**Abiotic:** Not biological; not involving or produced by organisms (Merriam-Webster, 1991).

**Adsorption:** The accumulation of substances at the interface between two phases; in water treatment, the interface is between the liquid and solid surfaces that are artificially provided (Peavy et al., 1985).

**Best Management Practice (BMP):** Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.

**Biofiltration:** The removal and oxidation of compounds from contaminated air using microorganisms. (Environmental Engineering Program, University of Southern California; <http://www-rcf.usc.edu/~bfilter/intro.html>)

**Biological assimilation:** The conversion of nonliving substances into living protoplasm or cells by using energy to build up complex compounds of living matter from the simple nutritive compounds obtained from food (Barnhart, 1986).

**Biotic:** Caused or produced by living beings (Merriam-Webster, 1991).

**Chemical decomposition:** Separation into elements or simpler compounds; chemical breakdown (Merriam-Webster, 1991).

**Complexation:** The process by which one substance is converted to another substance in which the constituents are more intimately associated than in a simple mixture; chelation is one type of complexation (Merriam-Webster, 1991).

**Connectedness:** Having the property of being joined or linked together, as in aquatic or riparian habitats.

**Constructed wetland:** Engineered wetlands that utilize natural processes involving wetland vegetation, soils, and their associated microbial assemblages to assist, at least partially, in treating an effluent or other source water. These systems are engineered and constructed in uplands, outside “waters of the United States,” unless the water source can serve a signifi-

cant restoration function to a degraded system (USEPA, 1998).

**Denitrification:** The biochemical reduction of nitrate or nitrite to gaseous nitrogen, either as molecular nitrogen or as an oxide of nitrogen.

**Ecosystem:** The complex of a community and its environment functioning as an ecological unit in nature; a basic functional unit of nature comprising both organisms and their nonliving environment, intimately linked by a variety of biological, chemical, and physical processes (Barnhart, 1986; Merriam-Webster, 1991).

**Erosion and Sediment Control:** A set of plans prepared by or under the direction of a licensed professional engineer indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction (USEPA, 1993c).

**Filtration:** The process of being passed through a filter (as in the physical removal of impurities from water) or the condition of being filtered (Barnhart, 1986).

**Habitat:** The place where an organism naturally lives or grows.

**Mitigation:** For the purpose of CWA section 404, compensatory mitigation is the restoration, creation, or enhancement of wetlands.

**Riparian area:** Vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent waterbody. These systems encompass wetlands, uplands, or some combination of these two landforms; they do not in all cases have all of the characteristics necessary for them to be classified as wetlands (Lowrance et al., 1983; Mitsch and Gosselink, 1986).

**Sedimentation:** The formation of earth, stones, and other matter deposited by water, wind, or ice (Barnhart, 1986).

**Species diversity:** The variations between groups of related organisms that have certain characteristics in common (Barnhart, 1986; Merriam-Webster, 1991).

**Synoptic Assessment Approach:** An approach that involves compiling, organizing, and depicting environmental information in a manner that ranks watersheds according to the relative significance and risks to wetlands and other ecosystems. The approach considers the environmental effects of cumulative impacts on wetlands and other ecosystems.

**Upland:** Ground elevated above the lowlands along rivers or between hills (Merriam-Webster, 1991).

**Vegetated buffer:** Strips of vegetation separating a waterbody from a land use that could act as a nonpoint pollution source. Vegetated buffers (or simply buffers) are variable in width and can range in function from vegetated filter strips to wetlands or riparian areas.

**Vegetated filter strip:** Created areas of vegetation designed to remove sediment and other pollutants from surface water runoff by filtration, deposition, infiltration, adsorption, decomposition, and volatilization. A vegetated filter strip is an area that maintains soil aeration as opposed to a wetland, which at times exhibits anaerobic soil conditions (Dillaha et al., 1989a).

**Vegetated treatment system:** A system that consists of a vegetated filter strip, a constructed wetland, or a combination of both.

**Watershed:** The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point.

**Waters of the United States:** As defined by 40 CFR 230.3:

(s) The term waters of the United States means:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats,

sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

- (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
- (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
- (iii) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (5) Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
- (6) The territorial sea;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

**Wetlands:** Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; wetlands generally include swamps, marshes, bogs, and similar areas. (This definition is consistent with the federal definition at 40 CFR 230.3, promulgated December 24, 1980. As amendments are made to the wetland definition, they will be considered applicable to this guidance.)